Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matters of	)	
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	
and	)	
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98

COMMENTS OF CONECTIV COMMUNICATIONS, INC.

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SUMMARY

This proceeding provides the Commission an opportunity to promote the pro-competitive goals of the Act by establishing a regulatory framework that will assure that ILECs permit physical collocation of equipment necessary for interconnection and access to unbundled networks on terms and conditions that are reasonable and nondiscriminatory. So far, since passage of the Telecommunications Act of 1996, the Commission has not fully embraced its authority under Section 251(c)(6) to assure that CLECs are afforded reasonable and nondiscriminatory collocation. The Commission should now do so and establish rules that will provide CLECs full parity in terms of access to, and use of, ILEC central offices. The nondiscrimination provision of Section 251(c)(6) requires no less.

For the reasons explained in these comments, the Commission may permit CLECs to collocate a full range of contemporary telecommunications equipment on ILEC premises, including multifunction equipment. The Commission must do so in order to assure that the benefits of local telecommunications competition are achieved.

The Commission has considerable discretion under section 251(c)(6) in defining "necessary" because Congress did not define this term in the Act.

More concretely, the Commission should define "equipment necessary for interconnection or access to UNEs" as encompassing any equipment that "enables" competitive interconnection or access to UNEs. The Commission should recognize that the meaning of necessary must accommodate changes in technology and market forces. The purpose of the Act is to promote competition, which could not be achieved if Congress had intended the scope of CLEC

collocation rights to be static. Rather, as more functionality is included in loops, additional functionality in CLEC equipment is necessary for interconnection and access to UNEs. As will be explained in these comments, the functionalities of ATM switches and routers are legally "necessary" for interconnection. Therefore, multifunction equipment may be collocated on a stand-alone basis in ILEC central offices. Collocation of this type of equipment is also necessary because the economic barriers that would be established by requiring CLECs to establish separate offices for this equipment, in addition to collocation space, would thwart achievement of the competitive goals of the Act.

Furthermore, as long as such integrated equipment contains functions that enable interconnection or access to UNEs, it is eligible for collocation notwithstanding that such other functions are also integrated into the equipment.

The Act provides that ILECs must provide CLECs physical collocation of equipment necessary for interconnection or access to UNEs "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory." Thus, the Commission may require that ILECs permit collocation of multifunction equipment on the basis that it is a reasonable condition of providing collocation generally, regardless of whether the Commission could require collocation of this equipment on the independent ground that the equipment enables interconnection and access to UNEs. Collocation of multifunction equipment greatly promotes the goals of the Act, and, moreover, does not increase the physical occupation of ILEC premises at all or to any significant extent.

Further, the Commission may, and should, reestablish the requirement that ILECs permit CLECs to perform their own cross-connects with other CLECs on ILEC premises. It would

create formidable practical and economic barriers to competition to require the CLECs to provision their own cross-connections only outside of ILEC central offices. A competitive market inherently involves direct relationships between CLECs, and CLECs must have parity with the ILEC in terms of ability to interconnect with CLECs. Absent this ability to form strategic alliances with other CLECs, and direct physical interconnection, competition will be seriously harmed. Further, as with collocation of multifunction equipment, the Commission may require ILECs to permit CLEC self-provisioned cross-connection as a reasonable condition of offering collocation. Any additional physical occupation of ILEC premises is trivial, and CLEC cross-connection greatly facilitates achievement of the pro-competitive goals of the Act.

This proceeding also presents an important opportunity for the Commission to lay the groundwork for local competition as ILECs deploy next generation and beyond network architectures. The Commission should define loop and transport facilities as encompassing advanced services equipment. The Commission's previous exclusion essentially of any ILEC equipment that was used in provision of advanced services, even if used for other services, is too broad. As the Project Pronto experience has shown, this approach is unworkable for a variety of reasons, including that it is not always a practical alternative for CLECs to collocate their own advanced services equipment either in the central office or at remote terminals. While CLECs should be able to obtain loop and transport facilities as UNEs apart from advanced services equipment, the functionalities of this equipment must also be offered as UNEs.

The Commission should make clear that an ILEC's obligation to offer all of the features, functions, and capabilities of the network as UNEs fully applies to new optical loops and network facilities. At a minimum, the Commission should require ILECs to offer as UNEs optical

wavelengths and virtual paths between the central office and the customer's premises, and as subloop elements, whenever it is technically feasible to do so.

However, CLECs are at a disadvantage in identifying new network capabilities that should be offered as UNEs because ILECs are not fully disclosing what those capabilities are. Current network disclosure rules essentially require only disclosure of what capabilities the ILEC unilaterally plans to deploy, not the full capabilities of new network equipment. ILECs must be required to disclose this information, including any manufacturer proprietary information, subject to non-disclosure agreements if necessary. The Commission should also require that ILECs make reasonable upgrades of equipment that will provide beneficial new network capabilities that could be offered as UNEs.

The Commission should also require ILECs to maintain, and offer as UNEs, copper loops as a safeguard to assure that CLECs may provide the current full range of advanced services.

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COMMENTS OF
CONECTIV COMMUNICATIONS, INC.

Conectiv Communications, Inc. ("Conectiv") submits these comments in response to the Commission's notices of proposed rulemaking[1] in the above-captioned proceedings concerning issues raised on remand[2] of the *Collocation Order*[3] and concerning the need for revision of the Commission's local competition rules in light of deployment of next generation network architecture by incumbent local exchange carriers ('ILECs").

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[1] In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket Nos. 98-147, 96-98, Order on Reconsideration and Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147, and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, FCC 00-297 (August 10, 2000)("Collocation Reconsideration Order and NPRM").

[2] *GTE Service Corp v. FCC*, 205 F.3d 416 (D.C. Cir. 2000)("*GTE v. FCC*").

[3] Deployment of Wireline Services Offering Advanced Telecommunications Capability, First Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 98-147, 14 FCC Rcd 4761 (1999)("Collocation Order"), *aff'd in part and remanded in part sub. nom. GTE v. FCC*, *supra*.

I. INTRODUCTION

Conectiv is a competitive local exchange provider ("CLEC") operating primarily in the Northeast. Unlike many CLECs, Conectiv has collocated equipment in a significant number of ILEC central offices. However, Conectiv's efforts to collocate its equipment have not been completely satisfactory.[4] In fact, Conectiv has encountered numerous obstacles to collocation, including limitations imposed by the ILECs on the types of equipment that Conectiv can collocate. One of the major obstacles facing CLECs, such as Conectiv, is their ability to collocate all of the equipment necessary to enable them to provide their competitive services to consumers. Only by limiting ILECs' ability and incentive to deny collocation based on the type or function of the equipment to be collocated can this Commission assure that the promotion of the pro-competitive goals of the 1996 Act and foster development of full competition to benefit consumers. In order to ensure that CLECs have a full range of options with respect to collocation of equipment on ILEC premises, Conectiv urges the Commission to adopt the recommendations set forth in these comments.

II. THE COMMISSION HAS THE AUTHORITY TO AND SHOULD REINSTATEE AND STRENGTHEN ITS RULES GOVERNING COLLOCATION IN ILEC CENTRAL OFFICES

Section 251(c)(6) of the 1996 Act requires ILECs to provide for "physical collocation of equipment necessary for interconnection or access to unbundled network elements" "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory."[5] To date, the

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[4] Attached hereto as Exhibit 1 is a "punchlist" of items that remain to be resolved in a number of central offices in which Conectiv is collocated.

[5] 47 U.S.C. Section 251(c)(6).

Commission has not attempted to exercise the full scope of its authority under Section 251©(6) to require ILECs to offer collocation on reasonable terms and conditions and to assure nondiscriminatory physical collocation in ILEC central offices. In fact, the Commission has the authority to require absolute competitive parity between ILECs and CLECs with respect to collocation and use of ILEC central offices. Indeed, given the implicit pro-competitive mandate of Congress embodied in the 1996 Act, it would be difficult to overstate the scope of the Commission's authority to prescribe reasonable terms and conditions for collocation and to prevent undue discrimination by ILECs against CLECs in collocation of equipment deemed "necessary" for interconnection or access to UNEs.

The basic regulatory standard of reasonableness and nondiscrimination is an essential feature of virtually all federal regulatory statutes, including, in addition to the Communications Act of 1934, the Interstate Commerce Act ("ICA"),[6] the Natural Gas Act ("NGA"),[7] and the Federal Power Act ("FPA").[8] The courts have said that Congress's purpose in adopting language prohibiting undue discrimination was "to cut up by the roots *every* form of discrimination, favoritism and inequality."[9] Moreover, the Courts have observed repeatedly that this statutory standard prescribing "undue" or "unreasonable" discrimination encompasses *every* form of

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6 49 U.S.C. §§ 2, 3(1) (1977).

7 15 U.S.C. §§ 717 *et seq*.

8 16 U.S.C. §§ 824.

9 *See, e.g., Louisville & Nashville R.R. Co. v. Mottley*, 219 U.S. 467, 478 (1911)(emphasis added).

unreasonable discrimination within the power of Congress to condemn.[10] Indeed, the courts have

not only upheld this Commission's broad authority to define the scope of unreasonable discrimination under Section 202(a) of the Communications Act of 1934, but they have affirmed this Commission's authority to fashion remedies for such discrimination, either retrospectively through injunction, or prospectively through the Commission's authority to prescribe just and reasonable terms and conditions of service.[11]

Such generic antidiscrimination provisions have justified agency action *far* more sweeping than merely establishing rules requiring nondiscrimination in the provision of collocation space, as the Commission contemplates in this proceeding. For example, nearly ten years before the passage of the 1996 Act, the Federal Energy Regulatory Commission ("FERC") completely restructured the natural gas industry,[12] based *solely* on FERC's longstanding authority to prevent "undue" discrimination under Section 5 of the NGA.[13] Reversing decades of regulatory policy, FERC required all vertically-integrated, producer-owned or affiliated pipelines – *for the first time* – to act as common carriers, transporting gas for third party shippers on the same terms and conditions that the pipelines applied to themselves. The new requirements imposed by FERC immediately eliminated a long-standing industry structure (*i.e.*, bundled commodity sales and transportation service) fostered under the NGA.[14] In upholding FERC's action, the Court noted that, while the NGA imposed no explicit "common carrier" obligation on pipelines, "the Act fairly bristles with concern for undue discrimination."[15] As recent as last month, the Court sustained a similar restructuring of the electric industry, including the imposition of an *involuntary* retail wheeling requirement on all public utilities with transmission facilities,[16] based on a broad interpretation of the antidiscrimination provisions of the FPA.[17]

Given that the Commission's authority under the 1996 Act to prevent discrimination by

incumbent LECs is considerably broader than that conferred under the ICA, the FPA, or the NGA, there can be little doubt that the Commission has the authority to adopt reasonable collocation rules.[18] First, as this Commission has recognized, in contrast to the statutes discussed above which prohibit "undue" or "unjust and unreasonable" discrimination,[19] Section 251 contains an unqualified and absolute prohibition against discrimination. Second, by requiring ILECs to provide interconnection to their competitors, the 1996 Act creates an incentive "for the LEC to discriminate against its competitors by providing them with less favorable terms and conditions of interconnection than it provides itself."[20] This manifest incentive warrants full enforcement of Section 251's strict prohibition on discrimination. Indeed, in interpreting Section 251's prohibition on discrimination, the Commission stated that:

> We believe that the term 'nondiscriminatory,' *as used throughout section 251*, applies to the terms and conditions an incumbent LEC imposes on third parties as well as on itself. In any event, by providing interconnection to a competitor in a manner less efficient than an incumbent LEC provides itself, the incumbent LEC violates the duty to be "just" and "reasonable" under section 251(c)(2)(D).[21]

This interpretation of nondiscriminatory applies equally to collocation deemed "necessary" under Section 251(c)(6) as it does to all the other various obligations imposed on ILECs under Section.[22]

A. The 1996 Act Permits Collocation Of A Full Range of Telecommunications Equipment

1. "Necessary" For Purposes of Collocation Means "Necessary for Effective Competition"

As noted above, the Commission has authority to establish collocation rules permitting collocation of a broad range of telecommunications equipment. In passing the 1996 Act, Congress noted it intends that the Commission "provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition."[23] The Commission should keep this overarching pro-competitive goal of the 1996 Act in mind when establishing collocation rules.

Despite the pro-competitive intent underlying passage of the 1996 Act, some ILECs will urge the Commission to adopt a narrow reading of the ILECs' obligations under the 1996 Act. Nonetheless, the Commission will best achieve the pro-competitive goals of the 1996 Act by viewing the "necessary" standard of Section 252(c)(6) of the Act as coextensive with the ILECs' obligations to provide interconnection and access to UNEs on just and reasonable and nondiscriminatory terms and conditions under Sections 251(c)(2)-(3).

To many CLECs, the ability to collocate all of their equipment in an ILEC central office is tantamount to being able to compete with the ILEC. For these CLECs, collocation of their equipment is not only necessary interconnect to the ILEC or to access UNE, but it is necessary to compete. Any limitation on the types of equipment the CLEC can collocate will necessarily limit the CLECs ability to compete.

2. The Commission Should Broadly Define "Interconnection" and "Access to UNEs" In Order to Ensure That ILECs Permit Collocation of a Full Range of Equipment

The Commission should broadly define interconnection and access to UNEs in order to ensure that all types of equipment that are necessary for interconnection are available for collocation. For example, so called packet-switches and equipment that interact with or receive packetized data are integral to interconnection and, therefore, necessary under the statutory test. The fact that a particular type of equipment performs a function in addition to interconnection or combines a routing and a switching function is not a basis upon which to deny collocation of equipment that is otherwise necessary for interconnection. Accordingly, equipment that interacts with or receives data in an interconnection should be eligible for collocation even on a stand-alone basis.

To illustrate this point, it is useful to consider interconnection as both the means through which networks are connected as well as a point at which intelligent routing decisions can be made. Without the ability to accurately and efficiently route traffic from one network to another, an interconnection would be little more than the boundary between two or more companies' networks. Thus, while it might be technically possible to establish an interconnection without routing or switching functionality, if including this functionality is more efficient, it is appropriate to consider the equipment that provides that functionality as part of the "interconnection" and as "necessary" for the interconnection, especially in equipment that inseparately integrates routing and interconnection.

In short, as the contemporary telecommunications market becomes increasingly characterized by greater amounts of packetized data traffic, there is no meaningful distinction

between interconnection and routing functions, especially in equipment that does little more than receive and process data streams according to instructions from software in the equipment itself. In other words, while circuit switching equipment establishes direct connections between circuits, and opens and closes those circuits, packet "switches" at most determine what routes data packets should take over, typically over unswitched circuits dedicated to ISPs or other data communications customers. This routing function is an integral part of the exchange of packetized information, which is essential for an increasing amount of telecommunications traffic and CLECs and ILECs alike. Thus, packet "switching" equipment, such as ATM switches and routers, are themselves necessary for interconnection under the statutory standard whether they are viewed as integrated with other functions or not. In this regard, it is worth noting that the OCD device that SBC plans to employ in connection with its "Project Pronto" is essentially an ATM "switch." As a result, it is necessary for CLECs to use an ATM device in order to interconnect with these OCDs. Therefore, CLECs should be permitted to collocate such devices.

The Commission should also define access to UNEs for purposes of collocation as encompassing any interaction between collocation equipment and the features, functions, and capabilities of UNEs. The 1996 Act defines network elements as including their "features, functions, and capabilities."[24] In order to access those functionalities effectively and on the same basis as the ILECs, CLECs must employ equipment that is fully capable of interacting with those features, functions, and capabilities. Therefore, any equipment that enable a CLEC to access the features, functions, and capabilities of UNEs meets the statutory "necessary" test as necessary to access UNEs. As ILECs continue to employ more advanced electronics in loops and central offices, the range of equipment that CLECs may collocate to access those loops and the related

electronics correspondingly increases. Fundamentally, ILECs are now increasingly deploying data equipment and optical systems as part of loops and other UNEs. CLECs must be able to collocate the equipment necessary to access the additional functionalities made available by this new equipment. As described below, the Commission should also designate a number of new UNEs related to ILECs' deployment of these next generation architectures. Accordingly, the Commission should determine that any equipment that interacts with any of the capabilities of these UNEs is necessary for access to UNEs.

3. The Commission Should Not Adopt the Restrictive "Necessary" Standard Adopted in the UNE Remand Order

In the order establishing this proceeding, the Commission requested comment on whether it should adopt the definition of necessary that it employed in the *UNE Remand Order* concerning access to proprietary network elements.[25] In that order, the Commission defined necessary as "if taking into consideration the availability of alternative elements outside the incumbent's network . . . lack of access to that element would . . . preclude a requesting carrier from providing the services it seeks to offer."[26] This definition is too restrictive in that it deems equipment "necessary", and thus permissible for collocation, only if the omission of that equipment would preclude the CLEC from providing its service. Rather than utilizing such a restrictive definition of "necessary", the Commission should define "necessary" so as to permit collocation of equipment that enables competitive interconnection or access to UNEs under Sections 251(c)(2)(1), and thereby enables a CLEC to provide a full range of telecommunications offerings.

Moreover, in determining whether equipment is eligible for collocation, there is no need for the Commission to employ the same definition of "necessary" with respect to UNEs that it

applied to proprietary UNEs since the necessary standard for access to proprietary UNEs was intended to afford some protection to proprietary information. The need for such protection is not a consideration with respect to the collocation of CLEC equipment on ILEC premises. In fact, the Commission has already established guidelines to ensure the protection of ILEC proprietary information. Therefore, there is no need for the Commission to assume that Congress intended the same restrictive definition of "necessary" to apply in the collocation context. In any event, denying a CLEC the ability to collocate equipment that enables it to interconnect or fully access UNEs, including all associated features, functions, and capabilities, would fatally limit the CLEC's ability to provide service and, therefore, meet the highly restrictive standard of the *UNE Remand Order*.

B. Any Commercially Available Equipment that Enables Interconnection or Access to UNEs Meets the "Necessary" Test

The Commission should determine that any equipment that enables interconnection or access to UNEs meets the "necessary" test. Unquestionably, CLECs must use such equipment in order to obtain interconnection or access to UNEs. Indeed, as the D.C. Circuit noted, such equipment is "indispensable"[27] for, or, alternatively "directly related to"[28] interconnection or access to UNEs because without such equipment, CLECs may do neither. Therefore, such equipment meets the statutory test of necessary for interconnection or access to UNEs because it enables provides the capabilities and functions that make such interconnection or access possible.

A number of products currently exist in the market that have the capabilities to and that enable interconnection or access to UNEs. Therefore, the only issue for the Commission to consider is which of those items may be collocated. The Commission should quickly reject the

inevitable ILEC attempts to narrowly define the types of equipment that enable interconnection or access to UNEs. Instead of falling into the trap of attempting to identify now the specific types of equipment that should be collocated, the Commission should let the marketplace determine the equipment that enables interconnection or access to UNEs. In other words, if a particular piece of equipment is commercially available and it enables interconnection or access to UNEs, a CLEC should be permitted to collocate the equipment on the ILEC premises. Absent reliance on the marketplace to define what equipment may be used for interconnection or access the UNEs, the Commission could potentially become involved in detailed examination and virtual design of telecommunications equipment.

C. Multifunction Equipment Is Eligible For Central Office Collocation

1. Multifunction Equipment Is Necessary for Interconnection If It Contains Features and Functions That Enable Interconnection or Access to UNEs

As stated, any equipment that is commercially available and that enables interconnection or access to UNEs meets the "necessary" test and should be permitted to be collocation. Further, it is consistent with the ordinary meaning of the words in the statute and the statutory purposes, to interpret "necessary" to mean that the ILEC must provide collocation of any equipment that contains the features and functionalities enabling interconnection, regardless of additional telecommunications functionalities that this equipment may contain. This interpretation would also include equipment that enables switching, to the extent that switching may not be viewed as enabling interconnection or access to UNEs.

Under "the 'ordinary and fair meaning of [the 1996 Act's] terms,'"[29] "equipment necessary for interconnection" may reasonably be interpretated to include equipment generally

available in the marketplace that has the features and functionalities necessary for interconnection, even if that equipment also has other features and functionalities which are integrated with the interconnection functionality. Such an interpretation is particularly important now when the rapid development of technology makes the integration of multiple features and functionality into a single piece of equipment both efficient and economical.

For example, just four years ago, a single, typical Class 5 Switch required a separate room. In contrast, today, several modern switches can fit comfortably within the space of a typical 10ft x 10ft collocation cage. As technologies continue to develop, the integration of functionalities that was impossible in 1996 is now totally practical. In order to ensure the continuation of this development, the concept of "equipment necessary for interconnection" cannot be frozen at the level of the technology in effect in 1996. Indeed, one of the principal purposes of the 1996 Act was "to accelerate rapid private sector deployment of advanced telecommunications and information technologies and services to all Americans."[30] It is inconsistent with this purpose, to believe that Congress intended to freeze the implementation of "equipment necessary for interconnection" at the level of the technology available in 1996, effectively precluding collocation of multi-functional technology developed after that date. Accordingly, it is reasonable and consistent with the purpose of the 1996 Act to interpret Section 251(b)(6) as permitting collocation of a wide range of telecommunications equipment that performs many functions in addition to enabling interconnection and access to UNEs.

2. Judicial Interpretations of "Necessary" Also Support a Requirement that CLECs be Permitted to Collocate Multifunction Equipment

In a situation analogous to that before the Commission in this proceeding, the Supreme

Court sanctioned and employed a definition of "necessary" that is considerably broader then "indispensable." In that case, *National Railroad Passenger Corp.*, the issue was whether the Interstate Commerce Commission ("ICC") had authority to condemn for Amtrack's use a 55-mile segment of railroad track in the State of Vermont under a statute authorizing condemnation of property "required for intercity rail passenger service."[31] On appeal of the ICC's decision, the Court of Appeals set aside the condemnation on the ground that a lesser action would have sufficed.[32] The Court of Appeals interpreted the ICC's condemnation authority to be limited "to property that was necessary, in the sense of indispensable, to Amtrak's operations."[33]

The Supreme Court reversed the Court of Appeals, according deference to the ICC's interpretation that "'required' can also mean 'useful or appropriate,'" and concluding that "Amtrak can find that an acquisition is required when it is a useful and appropriate way to accomplish its goals."[34] In a subsequent decision, a federal district court in Massachusetts followed the Supreme Court holding that Amtrak's authority to condemn land "necessary for intercity rail passenger transportation" is not exceeded when such condemnation is "a useful and appropriate way to accomplish [Amtrak's transportation] goals."[35]

These decisions are consistent with the definition of "necessary" in *Black's Law Dictionary* (6th ed. 1990), which states that "[i]n eminent domain proceedings, [necessary] means land reasonably requisite and proper for accomplishment of [the] end in view, not absolute necessity of particular location."[36]

In the matter before the Commission here, it is likewise "reasonably requisite and proper for accomplishment of the end in view" for a CLEC to collocate any equipment that is generally available and is capable of providing interconnection or access to UNEs. The ILECs' likely

argument that "necessary" means "indispensable," like the similar contention made by Amtrak's opponents, must be rejected.[37]

3. Prohibiting CLECs from Collocating Multifunction Equipment Would Create Economic and Practical Barriers to Competition

As noted above, CLECs should be permitted to collocate so-called multifunction equipment notwithstanding any other functions of such equipment if the equipment enables interconnection and access to UNEs. In addition, CLEC collocation of multifunctional equipment is "necessary" because denying CLECs this ability would effectively thwart their ability to compete in contravention of the purpose of the 1996 Act. To illustrate this point, it is useful to analyze the costs in interconnecting if a CLEC is not permitted to collocate multifunctional equipment. First, the CLEC would have to install lines from the ILEC Central Office to the CLEC's own switch site, the costs for which could exceed tens of thousands of dollars. Next, the CLEC would have to obtain or build out separate space for the multifunction equipment, which could exceed $100,000 per location, in addition to the monthly fee of several thousand dollars. Significantly, these costs are in addition to the exorbitant costs assessed by the ILEC for the collocation space itself, [38] which is necessary for interconnection and access to UNEs. Considering that a CLEC typically collocates in multiple locations, each of which would require the additional significant expenditures described above, in order to use multifunction equipment to provide service, it is clear that in many cases, the cost of interconnection would be prohibitive. Thus, it is clear that the collocation of multifunctional equipment is necessary in order for CLECs to be able to compete effectively, particularly in less populated and rural areas where the costs of interconnection in the absence of such a requirement would be especially high. Accordingly,

because of the economic and practical barriers to competition that would be created if CLECs are required to locate multifunctional equipment at a separate location, rather then an ILEC central office, the Commission should conclude that collocation of multifunction equipment is necessary.

4. Requiring ILECs to Permit Collocation of Multifunction and Stand-Alone Equipment Is a Reasonable Condition of Collocation

a. The Commission Has Authority Under Section 251 to Prescribe Reasonable Terms and Conditions on Collocation

Section 251(c)(6) requires ILECs to provide physical collocation of equipment necessary for interconnection and access to UNEs on rates, terms, and conditions that are reasonable and nondiscriminatory. Thus, the Commission may define "reasonable conditions" pursuant to which ILECs must offer physical collocation.[39] In that regard, the Commission may, and indeed should, require that, as a reasonable condition of the ILECs' obligation to provide collocation generally, ILECs be required to permit collocation of multifunction equipment, as well as some stand-alone equipment.

Significantly, the ILECs' obligation to provide physical collocation of equipment "necessary for interconnection or access to unbundled network elements"[40] is further defined by the requirement that the collocation be provided "on rates, terms, and conditions that are just and reasonable, and nondiscriminatory . . . ." [41] Under this fundamental nondiscrimination standard, the Commission is authorized to adopt provisioning rules that will ensure competitive parity between collocating CLECs and their ILEC hosts. This interpretation is consistent with the DC Circuit Court of Appeals' decision in *GTE v. FCC*, which despite vacating several collocation requirements, did not rule out reasonable guidelines for the provisioning of collocation space to achieve the manifest statutory objectives of the 1996 Act. Indeed, far from pronouncing a

complete prohibition on regulation of collocation space, the court merely stated that, on remand, "the FCC will have an opportunity to refine its regulatory requirements to tie the rules to the statutory standard. . . ." [42] The Commission can do so here while reestablishing and strengthening its rules to ensure competitive parity.

The Commission's statutory authority to establish terms and conditions for collocation does not limit the Commission to adopting rules that require ILECs to provide only the minimum terms and conditions "necessary" to allow for interconnection. The D.C. Circuit Court of Appeals, in stating that "[t]he statute requires only that LECs reasonably provide space for 'physical collocation of equipment necessary for interconnection or access to unbundled elements at the premises of the local exchange carrier,' nothing more",[43] was merely defining the equipment for which incumbents are required to provide collocation space. If equipment is determined to be *necessary* for interconnection or access to UNEs - and thus eligible for collocation on the ILEC premises- the ILEC's collocation offering must satisfy the requirement that the terms and conditions of such collocation be "reasonable" and "nondiscriminatory."[44]

b. Requiring ILEC to Permit Collocation of Multifunction Equipment Is A Reasonable Condition

As explained earlier, in the absence of a requirement that CLECs be permitted to collocate multifunction equipment, CLECs would be forced to obtain separate space for such equipment, and install communications links to backhaul traffic from the ILEC central office. These additional steps would substantially increase the costs a CLEC would incur to provide competitive services, especially in smaller and rural markets, which would, in turn, significantly delay, and otherwise impede CLEC entry into new markets. On the other hand, permitting

CLECs to collocate multifunction and stand-alone telecommunications equipment would create little or no increase in CLEC occupation of ILEC central offices. In fact, given the increasing efficiency and compactness of telecommunications equipment, the space required to collocate many types of equipment may decrease. In many cases, CLECs have already paid substantial sums to ILECs to purchase and build out collocation space with the expectation that the would be able to collocate of the equipment necessary for provision of service. Requiring these CLECs to again incur substantial costs to build additional space for their multifunction equipment would only serve to further enrich the ILECs at the expense of competition. In short, therefore, it is reasonable for the Commission to require ILECs to permit CLECs collocation of multifunction equipment because doing so would greatly facilitate CLECs ability to compete and would not have any significant effect on ILECs' central office space.

It is worth noting that, given the extremely high prices ILECs charge for collocation space, it would make little sense for CLECs to collocate equipment beyond what is "necessary" for interconnection and access to UNEs and therefore have to purchase more space. In addition, during the transition of the telecommunications market to competition, CLECs must have the ability to collocate the equipment that they have already selected for collocation. ILECs are attempting to use the collocation provisions of the 1996 Act as a basis to deny collocation of certain equipment and thus to hinder competition, when in fact the 1996 Act is intended to protect CLECs from this kind of behavior. Therefore, for the above reasons, it is reasonable for the Commission to make collocation of multifunction equipment a condition of ILECs' general obligation to permit collocation.

D. ILECs Must Be Required to Permit CLECs to Self-Provision Cross-

Connection Between Collocators in ILEC Central Offices

1. The Physical Collocation Requirement of Section 251(c)(6) Applies to Cross Connects Between CLECs on the ILEC Premises

Under the literal definition of the language of Section 251(c)(6), cross-connection is "interconnection . . . at the premises of the local exchange carrier." Conectiv urges the Commission to interpret the requirement that ILECs provide physical collocation of equipment "necessary for interconnection . . . at the premises of the local exchange carrier" to include under "the 'ordinary and fair meaning of [the 1996 Act's] terms,'"[45] a requirement to permit interconnection with the networks of other CLECs' that have interconnection points "at the premises of the local exchange carrier." Nothing in the legislative history of Section 251(b)(6) supports a narrow interpretation that the meaning of the statute is to provide only for collocation of equipment necessary for interconnection to the ILECs' network.

Moreover, a requirement that ILECs permit CLECs to cross-connect with other CLECs on the ILEC premises is also consistent with the structure of the statute. For example, Section 251(a) requires all carriers – including CLECs - to interconnect with other carriers. In addition, Section 251(c)(6) requires that any conditions imposed on interconnection be "nondiscriminatory." A condition that permits ILECs to deny CLECs the ability to cross-connect with another collocating CLEC in the central office, while permitting the ILEC to do so, would violate this nondiscrimination requirement. Cross-connection is necessary in order to ensure that each collocating CLEC in an ILEC premises is able to achieve the same interconnection with other CLECs that the ILEC itself is able to achieve. Even if "interconnection" were to be defined narrowly to encompass only interconnection with the ILECs' network, any condition denying

cross-connection would violate the statute's prohibition against "nondiscriminatory" conditions. In short, any rule limiting the ability of CLECs to cross connect would violate one of the basic purposes of the 1996 Act - and of section 251(c)(6) - to provide CLECs with "nondiscriminatory access."[46]

2. Permitting CLECs to Self-Provision Cross-Connects Is a Reasonable Condition of Collocation

Self-provisioned cross-connection is vital to CLECs' ability to compete and does not significantly affect ILECs. Without the ability to cross-connect directly with other collocators, CLECs would not be able to deploy advanced optical networking initiatives that require the use of dark fiber capacity leased from other competitive carriers. CLECs need the ability to cross connect directly with other CLECs to deploy these services because, in many cases, adequate ILEC optical cross-connect services are either unavailable and/or would degrade the quality of service that CLECs are able to provide in comparison to that available with direct cross-connection. As with any function or service that must be obtained from the ILEC, obtaining an optical cross-connect from the ILEC adds needless additional cost and installation time for each circuit. Significantly, ILECs frequent use of ICB (Individual Case Basis) pricing for optical cross-connects opens the door for both unrestrained costs and significant delays.

Moreover, currently-defined UNEs only include rates up to OC-48 levels, while CLECs are evaluating hardware capable of OC-192 and even OC-768 levels. CLECs would be prevented from using the advanced technology that enables them to build efficient, competitive networks if they are not permitted to self provision cross-connection at these levels. In addition, even where ILEC optical cross-connects are available, using these cross-connects will reduce performance

because of "optical-electrical-optical translations".

Additionally, if a CLEC uses ILEC hardware for optical cross-connection, the risk of equipment compatibility further limits technology choice and likely decreases a CLEC's ability to deploy the most modern and advanced solutions available in the market today. In contrast, direct self-provisioned cross-connection between CLECs does not raise any of these issues and thus better enables CLECs to bring consumers more competitive service quality choices.

As noted, permitting CLECs to self-provision cross-connects provides CLECs a great range of options and improves the ability of CLECs to bring competitive services to market. At the same time permitting CLECs to self-provision cross-connection in ILEC central offices will not significantly increase occupation of ILEC premises, or other burdens on ILECs. In many cases, an ILEC can simply install cabling between adjacent collocation cages or equipment racks in the central office. Even in those situations where CLECs' respective collocation spaces are not adjacent and thus cabling must be run for some distance between the CLECs' spaces, it is unlikely that the ILEC would be subject to any increased burdens since central offices are by their very nature designed for running cabling and performing interconnection. In any event, the 1996 Act does not prohibit CLEC self-provisioned cross-connection. To the extent the Commission believes limits should be established on CLEC self-provision of cross-connects, the Commission could establish reasonable limits, such as requiring that only technically qualified personnel may perform the work necessary to effectuate the cross-connect. Accordingly, for the reasons set forth above, the Commission has the authority to, and should, require ILECs to permit CLECs to self-provision cross-connection as a reasonable condition of offering collocation.

E. The Commission Should Establish Reasonable General Collocation

Provisioning Standards

The are a number of steps that the Commission can take to help assure nondiscriminatory access to ILEC central offices for physical collocation. As an initial matter, the Commission should reinstate the requirement that CLECs be permitted "to collocate in any unused space in the incumbent LEC premises."[47] In order to avoid any perception that the Commission, in originally imposing this requirement, intended to give CLECs arbitrary authority to determine where to collocate, the Commission should clarify that the requirement is intended to prevent the ILEC from unilaterally imposing arbitrary restrictions to prohibit collocation of CLEC equipment while preserving the space for the ILEC's future use. Additionally, the Commission can further clarify this requirement so as to permit ILECs to place "just and reasonable" restrictions on placement of non-"necessary" equipment in collocation space, as long as the ILEC also complies with those restrictions. Reinstating the requirement that CLECs be permitted to collocate in any unused space is necessary to put CLEC on the same competitive footing as the ILEC.

In addition, the Commission should reinstate its prohibition against unilateral, unreasonable ILEC requirements that collocating CLECs construct a separate room, cage, or similar structure for their equipment, collocate equipment on a separate floor, or create a separate entrance to their collocation space.[48] These arbitrary separation requirements do more than increase the costs incurred by CLECs to collocate; they constitute clear barriers to entry. A requirement that CLECs collocate on separate floors or rooms creates the potential for ghettoization of CLEC equipment and reduces the universe of space available for CLEC collocation to CLECs, while leaving the ILEC free to locate its equipment anywhere.[49]

Finally, the Commission should specifically prohibit ILECs from establishing intermediate

points of interconnection in lieu of direct connection to its network facilities. To support such a prohibition, the Commission can rely *both* on the technical feasibility of direct connection and the ILEC's obligation to provide collocation on just and reasonable and nondiscriminatory terms and conditions. Under the terms of the 1996 Act, ILECs are obligated to provide interconnection "at any technically feasible point within the carrier's network."[50] By definition, this requirement precludes any arrangement other than direct connection, including a requirement of indirect interconnection, in circumstances where direct connection is feasible. Moreover, the establishment of indirect interconnection points, unless justified by legitimate technical, operational, safety, engineering or security considerations, places CLECs in a less favorable competitive position than the ILEC, which violates the ILEC's obligation to offer interconnection at just and reasonable and nondiscriminatory terms and conditions. Accordingly, the Commission should specifically prohibit ILECs from requiring *indirect* interconnection in any case except where the ILEC certifies in writing that it cannot overcome the conditions that prevent direct connection.

F. The Commission Should Establish Minimum Provisioning Intervals for the Full Range of Collocation Arrangements.

The FCC has also requested comment on: (1) whether it should reduce the maximum provisioning interval for physical collocation arrangements to a number shorter than 90 days; and (2) whether it should establish separate minimum installation intervals for various other types of collocation.

Conectiv applauds the decision of the Commission to adopt a maximum provisioning interval for physical collocation of 90 days. However, as the incumbent LECs have gained more

experience with collocating CLEC equipment, and in installing equipment used to provide advanced services both for the incumbent LEC itself and its tenant CLECs, Conectiv believes that shorter intervals are appropriate.

Conectiv would add, however, that the Commission should adopt considerably *shorter* intervals where collocation necessitates *less* than the full complement of activities necessary for LECs to provision a full blown collocation application – *i.e.*, for modifications or additions to existing collocations, collocations within already prepared or conditioned space, or where the CLEC agrees to perform the work necessary to install a collocation cage. Of particular interest to Conectiv is the provisioning interval for augmenting existing collocation space necessary to install equipment associated with advanced services, such as splitters and cabling. Such collocation typically involves attaching equipment to existing structures with a few bolts and the attaching of pre-prepared cables. Acknowledging that such collocation necessarily involves less planning and logistical issues, Verizon has reduced the information required for applications for collocation augments by two-thirds. This reduction in paperwork – with its implications for the reduction in administrative tasks – should correspond to a shorter provisioning interval, especially when taken together with the decreased physical work required for collocation augments. Thus, for example, the Texas Commission has affirmed GTE's obligation to provide collocation augments within 30 calendar days, which time frame SWBT already has specified in its collocation tariff.[51] Likewise, the Pennsylvania Commission recently adopted a 45-business day interval for line splitters and cable augments.[52]

A similar reduction in provisioning intervals for collocation is appropriate where the CLEC is willing to construct portions of the collocation itself.

III. LOCAL COMPETITION RULES SHOULD BE UPDATED IN LIGHT OF NEXT GENERATION NETWORK ARCHITECTURES

A. "Project Pronto" and Richardson, Texas Implementations Demonstrate the Need For New Local Competition Rules to Govern ILEC Deployment of Next Generation Network Architectures

In the *Collocation Reconsideration Order and NPRM*, the Commission seeks comment on whether the deployment of new architecture and electronics by ILECs requires the Commission to revisit its local competition rules, particularly its rules on unbundling. In light of ILECs' deployment of so-called next generation network technologies, the Commission's inquiry could not come at a more crucial time. Indeed, it would be hard to imagine ILEC network deployments that would more dramatically show the need for revised Commission rules that will assure that CLECs are able to compete in the local telecommunications market. SBC in Project Pronto has proposed network deployments that would permit that incumbent carrier to determine the pace and scope of competition in the provision of advanced services. In Richardson, Texas, SBC has virtually foreclosed DSL competition by unilaterally removing copper loops.[53]

Conectiv is very concerned that "ILECs will extend their monopoly power over local telephony to advanced services by operating and controlling next-generation networks in a manner that ensures that only the ILECs (and their data affiliates) will be able to recognize the full benefits of new network technology and architecture."[54]

B. The Commission Should Redefine Loop and Transport UNEs to Include Advanced Services Electronics

A network element is defined under the Act as a "facility or equipment used in the

provision of a telecommunication service" which includes the "features, functions, and capabilities that are provided by means of such facility."[55] The loop was initially defined by the Commission as "a transmission facility between a distribution frame, or its equivalent, in an incumbent LEC central office, and the network interface device at the customer premises."[56] In its *UNE Remand Order*, the Commission modified its definition of the loop network element to include "all features, functions and capabilities of the transmission facilities, including dark fiber and attached electronics (except those used for the provision of advanced services, such as DSLAMs) owned by the incumbent LEC, between an incumbent LEC's central office and the loop demarcation at the customer premises."[57] The Commission has sought to ensure that its definition of the loop will apply to "new as well as current technologies."[58]

SBC's request for waiver of the SBC/Ameritech merger conditions to authorize the SBC/Ameritech incumbent LEC to own combinations POTS/ADSL plugs/cards located in remote terminals as well as optical concentration devices ("OCDs") located in central offices demonstrates the unworkability of excluding line cards and OCDs from the definition of the loop UNE.[59] As discussed below, the Commission should redefine the loop UNE to include both line cards and OCDs employed as part of DLC systems deployed by ILECs.

1. Line Cards

The Commission should include combination card/plugs within the definition of a loop. By SBC's own definition the combination unit equipment is "an integrated piece of technology having both POTS and DSLAM capabilities as well as the 'splitter' functionality."[60] DLCs, unlike DSLAMs, are not used solely for the provision of advanced services, but are "deployed where there are multiple service requirements (*i.e.*, voice and data)."[61] Thus, the basis for excluding

DSLAMs from the definition of the loop is not present with the combination cards. They are integrated, multi-functional equipment that play a vital role in the transmission of non-advanced, as well as advanced, services. The Commission noted in its *UNE Remand Order* that:

> [S]ome loops, such as integrated digital loop carrier (IDLC), are equipped with multiplexing devices, without which they cannot be used to provide service to end users. Because excluding such equipment from the definition of the loop would limit the functionality of the loop, we include the attached electronics (with the exception of DSLAMs) within the loop definition.[62]

Likewise, these integrated cards must be included in the definition of the loop because excluding them would limit the functionality of the loop. The new equipment being produced by vendors today provides such integrated functionality so that the line between implementing advanced and implementing non-advanced services is blurred. The Commission should rethink its exclusion of equipment used in the provision of advanced services from the definition of the loop. Such a bright line distinction is no longer tenable given the technology advances that have resulted in integrated equipment. Imprecise application of such a non-existent distinction would exclude equipment that is crucial to the functionality of the loop.

2. OCDs

OCDs, which are essentially ATM switches, separate each CLEC's ATM packetized bitstream from the common ATM packetized bitstream coming from the remote terminals, and hand off the appropriate packetized bitstream to each CLEC and ILEC advanced services affiliate.[63] Under SBC's proposed network configuration in Project Pronto, the ATM switches are "the only means by which the ADSL-based traffic of multiple CLECs can be aggregated and disaggregated."[64] Thus, the OCD will be the only feasible point at which CLECs can get access to the ATM's bit streams coming from their customers.[65] The OCD as deployed in Project

Pronto is a new bottleneck facility that, absent application of the unbundling obligations of the Act, SBC can use to control the pace of development of advanced services competition. Therefore, the Commission should define the loop UNE as including OCDs where such devices are deployed. This will enable CLECs to access the OCD functionality as part of the loop UNE.

C. CLECS Must Be Permitted to Deploy Their Own Line Cards

The plug/cards in the Project Pronto system are multi-functional, *i.e.*, they provide DSL functionality, DSLAM functionality, and splitter functionality.[66] SBC describes the combination plug/cards as "an integrated piece of technology having both POTS and DSLAM capabilities as well as the "splitter" functionality."[67] SBC has threatened to prohibit the collocation of CLEC DSLAMs within most remote terminals because of alleged lack of space.[68] As discussed, the Commission should require ILECs to provide additional collocation space at remote terminals. Therefore, lack of space should not be a sufficient reason for denying collocation at remote terminals. [69] However, to the extent space is an issue at remote terminals, plug-in cards provide a solution. The line cards provide an "efficient, convenient and less capital intensive means" for the CLEC to access the subloop.[70]

The problem is that the particular line cards utilized by SBC, and made by Alcatel USA, limit the type of xDSL "flavors" a carrier may provide. For instance, the line cards do not support SDSL service.[71] For CLECs desiring to provide xDSL services, other than those Alcatel's equipment supports, Alcatel suggests that these carriers deploy their own DSLAMs.[72] This is not a viable option for CLECs because the level of concentration present at a particular remote terminal may not justify the cost of collocation.[73] One solution would be to allow CLECs to provide their own line cards tailored to the particular class of service they seek to offer and to

have SBC install said line cards. SBC objects to this option. SBC argues that it is under no legal obligation to allow CLECs to reconfigure SBC's equipment, and it also argues that this option is technically infeasible.[74] Thus, SBC's position is that CLECs should be limited in the provision of their xDSL services to the type of service that is supported by the ILEC's line cards. Equally troubling is SBC's position that at any time it may transfer the line cards to its Advanced Service affiliate, and that "the obligations that would travel to the affiliate with such equipment would be evaluated on a case-by-case basis."[75] Unfortunately, the Commission's recent *Project Pronto Order* does not directly provide that CLECs may provision their own line cards.

In order to address these issues, CLECs must be permitted to provision line cards, both at remote terminals and in the central office, that would support the types of services they wish to offer. In this connection, states have already considered and rejected attempts by SBC to provision DSL-based services in ways that will permit CLECs to provide only ADSL services. The Illinois Commerce Commission recently required "Ameritech to install plug-in cards which support all DSL-based services requested by the CLECs."[76] And, the Texas Public Utility Commission has similarly rejected "ADSL only" competition-thwarting initiatives by SBC in the context of arbitrations with individual CLECs. Accordingly, the Commission should permit CLECs to provision their own line cards so that they may access the full functionality and capability of the loops they purchase.

D. The Commission Should Designate New UNEs

1. DWDM Wavelengths

Dense wave division multiplexing ("DWDM") technology multiplies the capacity of an optical fiber by simultaneously operating at more than one wavelength, thereby allowing multiple

information streams to be transmitted simultaneously over the fiber.[77] This technology permits fiber capacity to be split into separate capacity segments that could be used by different carriers to provide a host of advanced services. According to some observers, this technology is perhaps the best long-term strategy for promoting capacity in a network.[78] Verizon is using this technology in its large metropolitan areas, and such technology may help promote its fiber-to-the-curb deployments.[79]

The effect of such technology on the loop could be revolutionary. The technology will allow network carriers "to sell or lease the individual streams of light in fiber-optic networks that transport voice, video, or image traffic."[80] Customers, "such as ISPs, will be able to purchase only the network bandwidth they want, when they want it."[81] It will provide carriers with new revenue streams and allow companies to "boost sales by packaging wavelengths with Internet services and lift efficiency by leasing or trading network bandwidth as needed."[82] As one analyst notes:

> [O]ptical wavelengths are the building blocks of the next-generation service provider networks. We anticipate that optical wavelengths will be the unit of commerce for all service provider networks.[83]

The Commission should require ILECs to offer optical wavelengths as separate UNEs. The Commission has already taken this approach with line sharing in unbundling the electrical high frequency portion of copper loops. Just as the frequency of a copper loop is part of its "capability,"[84] so to is the wavelength of a fiber loop or subloop. Carriers should be allowed either to access unbundled loop functionalities such as wavelength, separate from other loop functions, or to access, at their option, the entire unbundled loop facility.[85] In this way, a carrier that only desired a particular wavelength could purchase that particular wavelength. If a carrier

wanted to access all wavelengths of the loop, it could purchase the entire loop and have exclusive use of the facility. The Commission could utilize a similar approach in regard to the DWDM electronics that it uses in regard to line splitters, *i.e.*, allowing the ILEC to install and maintain the electronics unless such control is inhibiting a CLEC's provisioning of services it seeks to provide.[86]

2. Constant Bit Rate Class of Service

Constant Bit Rate ("CBR") is a data service where the bits are conveyed regularly in time and at a constant rate, *i.e.*, "following a timing source or clock just as members of a marching band follow the beat of the drummer."[87] CBR technology could be the basis for current high-speed access solutions because it allows carriers to provide a full array of services.[88] This service is especially important in regard to sending uncompressed voice and video traffic because they are sensitive to variable delay, thus, they have to be transported without any interruptions in the flow of data.[89] As data transmission becomes more multimedia, *i.e.*, voice over ATM or IP and videoconferencing, quality of service ("QoS") issues arise.[90] These media are extremely bandwidth and delay sensitive, and unless packets are capable of being delivered in a real-time, orderly and timely manner, the quality of service is greatly affected.[91] Electronics that provide for CBR QoS address these problems.[92]

In connection with Project Pronto, CLECs have requested that SBC provide CBR class of service because it would provide a guaranteed bandwidth without queuing delays or discards.[93] SBC's initial position was that it could only provide unspecified bit rate ("UBR") service. UBR service will not permit CLECs to provide the full range of DSL services that they are currently providing and would also preclude future DSL services such as VDSL and G.shDSL.[94] SBC

eventually agreed to provide such service.[95] CBR service would thus avoid the technical limitations imposed by an ILEC's choice of a particular technology that could otherwise limit CLECs to a particular service, such as SBC's initial proposal to limit CLECs to providing ADSL over its NGDLC architecture. Accordingly, the Commission should designate CBR as a UNE.

3. The Broadband Fiber Loop UNE

The Commission should establish a fiber loop UNE product that would provide a CLEC use of an integrated loop facility. Conectiv proposes that this product offering be an extension of the latest iteration by SBC of its Broadband Service Offering.[96] In that offering, SBC offers access to a:

> combined network arrangement consisting of: copper facilities from the NGDLC device deployed in remote terminal sites (includes CEVs, huts, and cabinets) to the end user location; a permanent virtual circuit that consists of ATM data transported over a common OC-3c fiber facility from the NGDLC in the remote terminal terminating on the central fiber distribution frame and delivered to a leased affiliated or unaffiliated telecommunications carrier port on the SBC/Ameritech incumbent LEC's OCD in the serving wire center; and a port on the SBC incumbent LEC's OCD with associated cross-connects to extend the port to a point of affiliated or unaffiliated telecommunication carrier virtual or physical collocation.[97]

This product offering should be deemed to be an unbundled network element offered in accord with Sections 251 and 252 of the Act at forward-looking costs.[98] This product offering should be updated and extended in light of the issues raised above in regard to particular components of the NGDLC architecture and new technologies. In addition, the product offering should be allowed to evolve and adapt to reflect different NGDLC architectures and new product developments. The product offering should provide for deployment of equipment that gives a CLEC full access to the existing features and functionality of the facility as well as future features

and functionality.

E. ILECs Should Be Required to Disclose Fiber Deployment Plans and the Full Technical Capabilities of Next Generation Network Architectures

As discussed, the Commission has already determined that ILECs must offer as part of UNEs the full functions and capabilities of network elements. Conectiv has requested in these comments that the Commission specify that certain capabilities are part of the fiber loop UNE and that they be separately designated as UNEs. However, CLECs are disadvantaged in their ability to request advanced capabilities of next generation network architectures because ILECs and their vendors have not fully disclosed the capabilities of the equipment they plan to deploy. Moreover, current network disclosure rules are inadequate for revealing the capabilities inherent in advanced network equipment because those rules only require ILECs to disclose network changes that could affect interoperability.[99] While that disclosure is essential, it only reveals those equipment capabilities that the ILEC has chosen to activate.

Instead, the Commission should require that ILECs fully disclose the capabilities of all deployed equipment, including unactivated capabilities. To the extent vendor proprietary information is involved, the Commission may require that ILECs disclose this information subject to appropriate nondisclosure agreements.

IV. COPPER LOOPS MUST BE MAINTAINED

The Commission seeks comment on the impact the deployment of NGDLC will have on copper facilities, *i.e.*, what will happen to these copper facilities when the NGDLC is deployed as an overlay of existing copper facilities. The Commission needs to ensure that these copper facilities are maintained in such a manner that they provide a viable alternate source of CLEC

access to customers. The importance of these facilities has by no means been lessened by the NGDLC architecture, and in some cases, their importance has been heightened, particularly to those CLECs whose business plans are focused on the use of copper facilities.

One of the main reasons this Commission unbundled the subloop element was to facilitate CLEC access to customers in an integrated digital loop carrier ("IDLC") environment.[100] While, as shown above, technology has provided more ways for CLECs to access IDLC customers,[101] ILEC deployment of the NGDLC architecture, and the restrictions the ILECs have imposed, ensure that CLECs will still have difficulties accessing their customers under the NGDLC architecture. Maintaining existing copper facilities in the subloop will give CLECs more options in providing such access.

As discussed above, the lack of collocation space for CLEC DSLAMs in many NGDLC remote terminals coupled with interoperability issues with line cards could effectively preclude a CLEC's ability even to access its customers, much less to provide the services it seeks to offer to its customers. The ILECs and their vendors have trumpeted the continued availability of copper facilities as a solution.[102] For copper to remain a viable alternative to the CLECs, the spare copper facilities need to be maintained.[103]

The concerns of the CLECs over their ability to access customers in the NGDLC environment have been well-documented in Docket 98-141 and other dockets. These are not idle concerns. In Richardson, Texas, SBC deployed fiber-to-the-curb technology that effectively precluded CLEC provision of advanced telecommunication services including xDSL services.[104] SBC coupled its fiber-to-the-curb deployment with elimination of most of the copper infrastructure in that network segment. CLECs collocated at the Richardson, Texas central office

were left with "little if any access to copper loop UNEs for the provision of xDSL service."[105] This precipitous removal of copper facilities rendered the expensive collocation arrangements CLECs made in Richardson, Texas, useless, and precluded CLECS' ability to provide advanced services.[106] This example illustrates in a nutshell how allowing ILECs unilateral, unfettered control over facility deployment has already led to the stunting of competition.

In addition to addressing the CLEC access issues, the continued use of copper facilities will be beneficial from a network perspective basis as well. Copper remains the most economical medium for the distribution portion of the loop, particularly given the high cost of fiber-to-the-curb technology.[107] In addition, many of the technological advances described in regard to fiber technology are occurring with copper as well. ILECs recognize the huge investment they have made in the copper infrastructure and are looking to develop their fiber networks while at the same time getting more out of copper pairs.[108] Thus, for the near future, at least, copper and fiber will co-exist in ILEC networks.

This explains why, despite ILEC exhortations on the need to protect their control over the network, there is a surprising underlying consensus on the need to preserve copper facilities. As one observer notes:

> [S]imilarly, despite reservations in filings before the Commission in other contexts, SBC notes that maintaining copper loops is <u>essential</u> to preserve competitive options, especially in light of flourishing technological advances in delivering copper-based DSL services on home-run copper ("These all-copper loops may become even more useful for provisioning DSL-based services because new forms of DSL with longer reach on all copper loops may evolve." ¶ 31)[109]

This consensus is reflected in the "voluntary commitment" made by SBC in regard to spare copper facilities. SBC has stated that (1) it has no current plans, or plans under consideration to

retire "mainframe terminated" copper facilities with NGDLC deployment;[110] (2) it will follow its established copper retirement policy in a non-discriminatory manner; (3) if it does retire copper facilities pursuant to its NGDLC deployment, it will give six months' notice of such retirement via Internet posting and offer to sell such facilities to unaffiliated parties; and (4) the application of its copper retirement policy during the next three years will result in the retirement of no more that 5% of its total mainframe copper facilities in service as of September 1, 2000.[111]

The requirement of the Project Pronto Order that prohibits SBC from retiring copper for three years is seriously inadequate.[112] The Commission must recognize that the development of fully competitive markets does not happen overnight, and that development of facilities-based competition requires a medium for the transmission of communications, in this case the medium of copper. Also, the development of competition is based on attraction of investment capital, which will not happen if the period of availability of the medium is too short and the risk too high. SBC's proposal of three years is simply too short for this purpose. The Commission has already found that a time horizon of at least ten years is necessary to promote facilities-based competition.[113]

Accordingly, ILECs should be required to maintain copper facilities for at least ten years. CLECs need that time horizon "in order to adequately, finance, and implement business plans."[114] In addition, an ILEC should be precluded from focusing its retirement efforts on particular central office(s) such that it could effectively retire the copper loops in an entire area. Otherwise the ILEC could target its retirement plans to areas in which competition is thriving, thereby thwarting such competition, and promoting the interests of the ILEC's advanced services affiliate.

V. CONCLUSION

For the foregoing reasons, the Commission should adopt the policies and requirements urged by Conectiv.

Respectfully submitted,

/S/

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Dated: October 12, 2000

Exhibit 1

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	VI. Punch Item	Date Referred to Bell Atlantic
Bala Cynwyd	Physical	9/18/99	9/15/99	1	Dual fiber feed not extended to Cage area	9/15/99
				2	No light in Pot Bay Area	9/15/99
				3	No AC outlet in Pot Bay Area	9/15/99
				4	Green ground not extended to cage area	9/15/99
				5	CFA not provided	9/15/99
				6	DSO layout not provided	9/15/99
				7	No AC outlet in the common area	9/15/99
				8	No restroom access provided	9/15/99
				9	DS3's wired to front of DSX block in common bay-should be on rear.	9/15/99
				10	LCC indicates Conectiv to provide fuses for the Bell Atlantic BDFB. This is absurd.	9/15/99
				11	Fire plan for space not provided. Fire door not identified.	9/15/99
				12	Floor Plan not provided.	9/15/99
Ardmore	Physical	9/18/99	9/15/99	1	Dual fiber feed not extended to Cage area	9/15/99
				2	Air Conditioning not working	9/15/99
				3	Cable Rack not stenciled	9/15/99
				4	DS3 stenciling incorrect	9/15/99
				5	CFA not provided for DS1's and 3's	9/15/99
				6	DSO layout not provided	9/15/99
				7	No restroom access provided	9/15/99
				8	DS3's wired to front of DSX block in common bay-should be on rear.	9/15/99
				9	LCC indicates Conectiv to provide fuses for the Bell Atlantic BDFB. This is absurd.	9/15/99
				10	Fire plan for space not provided. Fire door not identified.	9/15/99
				11	Floor Plan not provided.	9/15/99
Ambler	Physical	12/2/99	12/8/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	DS3 cabling - run from front of frame to rear	12/8/99
				4	Ground bar is full	12/8/99
				5	Restroom access not available	12/8/99
				6	Trash and ladders in collocation space	12/8/99
Lansdale	Physical	11/26/99	12/8/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	DS3 cabling - run from front of frame to rear	12/8/99
				4	DS3 cabling transmit and receive not separated	12/8/99
				5	Space issue 200 sq. ft. space with column -usable space approx. 170 sq. feet.	12/8/99
Media	Physical	11/26/99	12/2/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	DS3 cabling - run from front of frame to rear	12/8/99
				4	Additional lighting required in common area	12/8/99
				5	Insertion tool and test cords for Krone Block missing	12/8/99
Chester Heights	Physical	11/26/99	12/2/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	DS3 cabling - run from front of frame to rear	12/8/99
				4	House cable block in Collocation space	12/8/99
				5	Trash in Collocation Space	12/8/99
				6	Emergency lighting missing	12/8/99
				7	Additional lighting required in common area	12/8/99

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	VI. Punch Item	Date Referred to Bell Atlantic
Ridley Park	Physical	11/26/99	12/2/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	Insertion tool and test cords for Krone Block missing	12/8/99
				4	No restroom access	12/8/99
				5	No lighting at collocation outside entrance door.	12/8/99
Larchmont	Scope	12/2/99	12/2/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	Power Cables not identified	12/8/99
				4	Only 4 scope bays provided - plenty of room in the building. Need 4 add'l bays.	12/8/99
				5	DS3's not stenciled	12/8/99
Kirklyn	Physical	11/26/99	12/2/99	1	No collocation signs on doors.	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	Power Cables not identified	12/8/99
				4	Insertion tool and test cords for Krone Block missing	12/8/99
				5	Trash in collocation space	12/8/99
				6	Emergency Lighting - need more or relocate existing	12/8/99
				7	DS3 panel stenciling missing	12/8/99
Trooper	Physical	11/26/99	12/22/99	1	Trash in collocation space	12/23/99
				2	DS1's - CFA and wire out do not agree	12/23/99
				3	DS1's - far end designations incorrect	12/23/99
				4	DS3's - no sew bar provided	12/23/99
				5	DS0's - no frame assignment on EPA	12/23/99
				6	Light at DS0 frame needs to be lowered	12/23/99
				7	Dual fiber feed not installed	12/23/99
				8	Provide electronic copy of CFA and EPA	12/23/99
Pottstown	Physical	11/26/99	12/22/99	1	Floor plan and red tape do not agree	12/23/99
				2	Dual fiber feed not installed	12/23/99
				3	DS0's - no frame assignment on EPA	12/23/99
				4	Trash in collocation space	12/23/99
				5	Provide electronic copy of CFA and EPA	12/23/99
				6	Lighting in common area inadequate	12/23/99
				7	DS3's - cables run from rear of frame to front	12/23/99
				8	DS3's - Panel not stenciled in rear	12/23/99
				9	DS3's - missing sew bar	12/23/99
Phoenixville	Physical	12/2/99	12/22/99	1	Light in stairway to common area out - all floors	12/23/99
				2	No tape on floor to mark collocation area	12/23/99
				3	Trash in collocation space	12/23/99
				4	Cable Rack in collocation space	12/23/99
				5	No light in DS0 POT area	12/23/99
				6	DS3's - cables run from rear of frame to front	12/23/99
				7	Dual fiber feed not installed	12/23/99
				8	No Lights in collocation space	12/23/99
				9	No AC outlets in collocation space	12/23/99
				10	Cable Hole in collocation space	12/23/99
				11	DS0's - no far end designation on EPA	12/23/99
West Chester	Physical			1	Cage is not grounded	4/1/99
				2	Lights above cage are above ladder rack.	4/1/99
				3	No emergency lighting	4/1/99
				4	No collocation sign on outside door	4/1/99
				5	No floor plan drawing of Cage Area	4/1/99

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	VI. Punch Item	Date Referred to Bell Atlantic
				6	Need additional keys - 5 for cage 2 for front door	4/1/99
Paoli	Physical			1	Restroom available for women only. Can it be made generic?	4/1/99
				2	Cage is not grounded	4/1/99
				3	No floor plan drawing of Cage Area	4/1/99
				4	Need additional keys - 5 for cage 2 for front door	4/1/99
				5	No emergency lighting	4/1/99
Coatesville	Physical	9/11/99	Not Scheduled			
Bryn Mawr	Scope	1/17/00	1/12/00	1	Entrance Door: Need collocation lock.	1/12/00
				2	Entrance Door: No sign on door.	1/12/00
				3	No lights at POT bays.	1/12/00
				4	No dual fiber feed to collocation.	1/12/00
				5	DSO CFA incorrect.	1/12/00
Downingtown	Scope	1/17/00	1/12/00	1	DS1 CFA incorrect.	1/12/00
				2	DS1 panels and DS3 panels: DS1 - spacing; DS3 - cabled from rear to front.	1/12/00
				3	Restroom Access	1/12/00
				4	Fiber Duct - single feed only.	1/12/00
				5	Trash in collocation area.	1/12/00
				6	Environmental: No AC	1/12/00
				7	Within scope space, other vendor cables in Conectiv's space.	1/13/00
Bristol	Physical	11/26/99	1/13/00	1	Poor aisle lighting over POT bays	1/13/00
				2	Stenciling errors at the DS1 POT bay.	1/13/00
				3	Dual fiber feeds not installed (ER conduit not installed)	1/13/00
				4	Conectiv did not receive EPA assignments.	1/13/00
Churchville	Physical	11/26/99	1/13/00	1	Dual fiber feeds not installed (ER conduit not installed)	1/13/00
				2	Stenciling errors at the DS1 POT bay. (The far end of the bay.)	1/13/00
				3	Conectiv did not receive EPA assignments.	1/13/00
Hatboro	Scope	11/26/99	1/13/00	1	Poor aisle lighting over POT bays	1/13/00
				2	Stenciling errors at the DS1 POT bay. (The far end of the bay.)	1/13/00
				3	Dual fiber feeds not installed (ER conduit not installed)	1/13/00
				4	Conectiv did not receive EPA assignments.	1/13/00
				5	No collocation signs on front or interior doors	1/13/00
				6	No emergency lighting	1/13/00
Jenkintown	Physical	11/26/99	1/13/00	1	Bell Atlantic provided single pull box. Conectiv requires dual box for fiber conduit.	1/13/00
				2	Stenciling errors at the DS1 POT bay. (The far end of the bay.)	1/13/00
				3	Restroom not available without escort.	1/13/00
				4	DS1 CFA is incorrect on Line 2: RR152.08/0009 should be RR152.10/0009	1/13/00
				5	Conectiv did not receive EPA assignments.	1/13/00
Reading	Physical	11/26/99	1/13/00	1	Floor plan is incorrect.	1/13/00
				2	No collocation sign on doors.	1/13/00
				3	No emergency lighting	1/13/00
				4	DSO Bay: Missing stamping	1/13/00

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	VI. Punch Item	Date Referred to Bell Atlantic
				5	DSO Blocks: Some DSO blocks had wrong far end stamping.	1/13/00
				6	DS3 Panel: Stamping error at the far end of the panel.	1/13/00
				7	Dual fiber feeds not installed	1/13/00
				8	No restroom access provided	1/13/00
				9	Conectiv did not receive EPA assignments.	1/13/00
King of Prussia	Scope	2/4/00	2/7/00	1	AC outlets are too far from the Scope bays.	2/7/00
				2	Air handler installed is not working.	2/7/00
				3	Aisle lighting is missing.	2/7/00
				4	Cable rack not marked for voice, power or fiber.	2/7/00
				5	No pull boxes installed for fiber.	2/7/00
				6	Pathway for fiber from Tier 3 rack to Scope bays is not installed.	2/7/00
Wayne	Physical	24/00	2/7/00	1	Dual fiber feeds are not extended to the collocation space.	2/7/00
				2	No restroom access provided.	2/7/00
Springfield	Physical	2/19/00	2/17/00	1	No lighting between door to common area and lobby	2/17/00
				2	Common area lighting blocked by scope bays.	2/17/00
				3	No POT bay lighting.	2/17/00
				4	Cage lighting switch located in common area - not cage area.	2/17/00
				5	Scope bay within 3' of door to common area. (Moving equipment in would be dangerous.)	2/17/00
				6	DS1 panels are not stenciled - Front and rear	2/17/00
				7	DS1 panel - #14 blocked by Bell Atlantic cables.	2/17/00
				8	Fiber conduit - 2" direct to cage area - bend radius on 2" questionable.	2/17/00
				9	Fiber conduit - pull box does not connect to fiber rack.	2/17/00
				10	EPA sheet is incomplete.	2/17/00
				11	"Women's" only restroom	2/17/00
				12	Need keys to collocation door.	2/17/00
				13	Material in collocation space - very little - boxes and end guards.	2/17/00
Conshohocken	SCOPE	3/12/00	3/28/00	1	Floor plan does not match floor layout at site.	3/28/00
				2	Aisle lighting not in place.	3/28/00
				3	DS1 Panel - wrong panel assignments.	3/28/00
				4	Fiber Conduit - 1 1/2" not run from pull box to scope space.	3/28/00
Norristown	SCOPE	3/12/00	3/28/00	1	DS1 Panel - 11 (far end) 9B, 1 - 24 -- should be 1 - 4.	3/28/00
				2	DS1 Panel - 13 (far end) 9B, 4 - 28 -- should be 5 - 28.	3/28/00
				3	Fiber - Provided only one pull box. Should have dual.	3/28/00
				4	Fiber Conduit - 1 1/2" not run from pull box to scope space.	3/28/00
				5	Space on voice rack not sufficient. (Need to discuss - may not be an issue.)	3/28/00
				6	Material in scope space needs to be removed.	3/28/00
Exton	SCOPE	5/27/00	5/18/00	1	DS1s - Grounding and stenciling issues	5/18/00
				2	DS3s - Cable on rear of frame hanging - stenciling issues	5/18/00
				3	Fiber - No pathway frompull box to the bay.	5/18/00
				4	Cable reel and constrution material in space	5/18/00

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	Punch Item	Date Referred to Bell Atlantic
Market	Physical	11/26/99	12/8/99	1	Power cables not tagged	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	DOS's - no cable rack from Krone Blocks to collocation space	12/8/99
				4	DS0's stenciled incorrectly	12/8/99
				5	CFA Error - DSX1 Panel 16A should be panel 4A	12/8/99
				6	Trash and ladders in collocation space	12/8/99
				7	No collocation sign on door	12/8/99
				8	There is a key pad there -- need additional key.	6/1/00
Pennypacker	Physical	11/26/99	12/8/99	1	Only one key provided - need additional	12/8/99
				2	No AC outlets provided in collocation space	12/8/99
				3	Dual fiber feed not extended to Cage area	12/8/99
				4	DS0's stenciled incorrectly	12/8/99
				5	Need floor plan - can't read faxed copy	12/8/99
				6	No collocation sign on door - exterior door	12/8/99
				7	Ground Bar - no space available	12/8/99
				8	No collocation signage to collocation space once inside Colo.	1/5/00
Evergreen	Physical	11/26/99	12/8/99	1	No collocation sign on door - exterior door	12/8/99
				2	Dual fiber feed not extended to Cage area	12/8/99
				3	Air Conditioning not Installed	12/8/99
				4	No Ground available in collocation room	12/8/99
				5	DS0's stenciled incorrectly	12/8/99
				6	CFA - can't read faxed copy	12/8/99
				7	No restroom access	12/8/99
				8	No collocation signage to collocation space once inside Colo.	1/5/00

Central Office	Type of Collocation Space	Item #	Punch Item	Date Referred to Bell Atlantic
Marlton	Physical	1	Dual fiber feed conduit not installed	8/19/99
		2	DSO's stenciled incorrectly	8/19/99
		3	DSX 1 panels installed incorrectly	8/19/99
		4	Access Card System does not work	8/19/99
		5	Change green ground from #6 to#2	8/19/99
		6	DS3's wired to the front of the panel	9/15/99
		7	No access to restroom	8/19/99
Princeton	Physical	1	No AC outlets provided	8/19/99
		2	DSX 1 panels installed incorrectly	8/19/99
		3	Dual fiber feed conduit not installed	8/19/99
		4	Access Card System does not work	8/19/99
		5	No access to restroom	8/19/99
Camden	Physical	1	Air conditioning doesn't work	8/20/99
		2	No collocation sign on outside door	8/20/99
		3	Chilled water pipes above colo. Wanted pipes relocated because they are under pressure. Need parity between various offices.	8/20/99
		4	Access Card System does not work	8/20/99
		5	Dual fiber feed conduit not installed	8/20/99
		6	DSX 1 panels installed incorrectly	8/20/99
		7	DSO's stenciled incorrectly	8/20/99
		8	No access to restroom	8/20/99
Atlantic City	Physical	1	No lighting in Cage area	8/20/99
		2	No AC outlets provided	8/20/99
		3	Cage area not marked on floor	8/20/99
		4	Dual fiber feed conduit not installed	8/20/99
		5	Voice cable rack not extended to cage area	8/20/99
		6	DSO's stenciled incorrectly	8/20/99
DS3 - rear		7	DSX 3 panel not stenciled at POT Bay	8/20/99
		8	Access Card System does not work	8/20/99
		9	No Access to Restroom	8/20/99
Trenton	Physical	1	Aisle 293 too close to collocation area	8/31/99
		2	Voice cable rack not extended to cage area	8/31/99
DS3 - rear		3	No DS 1 and DS 3 CFA provided	8/31/99
		4	No Access to Restroom	8/31/99
		5	DSX 1 panels installed incorrectly	8/31/99
		6	DSO's stenciled incorrectly	8/31/99
		7	No DSO layout provided	8/31/99
		8	Dual fiber feed conduit not installed	8/31/99
		9	Incorrect EPA assignment caused assignment to wrong place.	6/1/00
Moorestown	Physical	1	Access Card System does not work	8/30/99
		2	DSX 1 panels installed incorrectly	8/30/99
		3	No DS 1 and DS 3 CFA provided	8/30/99
		4	DS 3 at POT Bay - Far end not stenciled	8/30/99
		5	No access to restroom	8/30/99
		6	No DSO layout provided	8/30/99
		7	DS3 wired to front of Panel	9/23/99
		8	DSO Stenciling	

Central Office	Type of Collocation Space	Item #	Punch Item	Date Referred to Bell Atlantic
Mount Holly	Physical	1	DSX 1 panels installed incorrectly	8/30/99
		2	DSX 1 panels - wire organizer missing	8/30/99
DS3 Rear		3	DSX 3 missing wire organizer	8/30/99
		4	No DS 1 and DS 3 CFA provided	8/30/99
		5	No floor plan provided	8/30/99
		6	No DSO layout provided	8/30/99
		7	Dual fiber feed conduit not installed	8/30/99
		8	No access to restroom	8/30/99
Cherry Hill	Physical	1	No floor plan provide	8/30/99
		2	No DS 1 and DS 3 CFA provided	8/30/99
		3	No DSO layout provided	8/30/99
		4	No access to restroom	8/30/99
		5	No tags on power cables	8/30/99
		6	Dual fiber feed conduit not installed	8/30/99
		7	Access Card System does not work to Common Area.	8/30/99
		8	DSO Stenciling	
Willingsboro	Physical	1	No lighting provided	8/31/99
		2	No AC outlets provided	8/31/99
		3	New drywall not painted	8/31/99
		4	Air conditioning not working	8/31/99
		5	No collocation access door	8/31/99
		6	Dual fiber feed conduit not installed	8/31/99
		7	Extra power cables run to cage (6)	8/31/99
		8	DSX 1 - POT Bay Bell wired to wrong panels	8/31/99
		9	No DSO layout provided	8/31/99
Blackwood	Scope	1	DS1's spacing at POT Bay incorrect	9/15/99
DS3 rear		2	Fiber Duct not run to scope space.	9/15/99
		3	Three Scope Bays provided (7)requested.	9/15/99
		4	Cable rack not extended to scope space.	9/15/99
		5	Stumble lighting needs adjusting.	9/15/99
		6	Need Cable Rack Plan	9/15/99
		7	Floor not marked for bay locations	9/15/99
Glassboro	Scope	1	Single fiber feed provided - dual requested	9/13/99
		2	DSX 1 panels installed incorrectly	9/13/99
		3	DSO's not stenciled	9/13/99
		4	3 Scope Bays provided 7 requested	9/13/99
		5	Cable rack not extended to scope bays	9/13/99
		6	Bay locations not marked on floor	9/13/99
		7	Air Conditioning not working	9/13/99
		8	DS1's&3's -far end not stenciled on POT Bay.	9/13/99
		9	Need cable rack drawing	9/13/99
		10	Cable rack is a mess - Covad has incorrectly installed their cables. Power on voice rack!	9/13/99
Vineland	Scope	1	No Card Access system installed	9/13/99
		2	No collocation sign on door	9/13/99
		3	5 Scope Bays provided - 7 requested	9/13/99
		4	DSO cabling not installed	9/13/99
		5	No AC outlets or Lights	9/13/99
		6	Need cable rack drawing	9/13/99
		7	Dual fiber feed not installed	9/13/99

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		8	Ground bar not visible	9/13/99
		9	No restroom access	9/13/99
		10	Bay locations not marked on floor	9/13/99
		11	DS1&3 - far end not stenciled	9/13/99
Collingswood	Physical	1	Swipe Card System does not work	9/14/99
		2	Dual fiber feed not extended to Cage Area	9/14/99
		3	Floor space not marked. (tape)	9/14/99
		4	No collocation sign on door	9/14/99
		5	Power cables do not show far end	9/14/99
		6	DS0 DLM 53-1 not stenciled	9/14/99
		7	No green #2 Ground	9/14/99
Runnamede	Physical	1	No work completed at this location	9/14/99
			LCC indicates change from physical to scope space	

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Woodbury	Physical	1	No AC outlets installed in cage area - completed 1/19	10/26/99
		2	Dual fiber feed not installed correctly - no diversity - 1/19 need pull box	10/26/99
		3	Access card system does not work - completed 1/19	10/26/99
		4	DS0's 1300 provided - 1600 requested	10/26/99
		5	DS1 panels mounted backward wiring on front of bay	10/26/99
		6	CFA and DS0 assignments - need electronic copy	10/26/99
Mercerville	Physical	1	DSX 1 panels installed incorrectly - spacing	10/26/99
		2	DSO's stenciled incorrectly	10/26/99
		3	Dual fiber feed conduit not installed correctly - no diversity 1/19 need pull box	10/26/99
		4	CFA and DS0 assignments - need electronic copy - completed 1/19	10/26/99
		5	Access card system does not work - completed 1/19	
Berlin	Physical	1	No collocation signs on doors - completed 1/19	10/26/99
		2	Access card system does not work - completed 1/19	10/26/99
		3	No tags on power cables	10/26/99
		4	Telco DS3 not wired	10/26/99
		5	Extend dual fiber to cage area - diversity not provided - 1/19 Need pull box	10/26/99
		6	1600 DSO pairs provided - 1800 requested	10/26/99
		7	DC Power - 100 provided 60 amp requested	10/26/99
		8	CFA and DS0 assignments - need electronic copy - completed 1/19	10/26/99
Penns Grove	Physical	1	DS1 panels installed incorrectly - spacing	10/26/99
		2	DS3's wired to front of panel	10/26/99
		3	Access card system does not work - completed 1/19	10/26/99
		4	No tags on power cables	10/26/99
		5	Power cables not long enough to reach CLEC fuse panel	10/26/99
Millville	Physical	1	Access card system does not work - completed 1/19	10/26/99
		2	No collocation sign on door - completed 1/19	10/26/99
		3	No tags on power cables - completed 1/19	10/26/99
		4	Dual fiber feeds not provided - 1/19 Need pull box	10/26/99
		5	DS1 panels spacing wrong - completed 1/19	10/26/99
Bridgeton	Physical	1	No collocation sign on door - completed 1/19	10/26/99
		2	Access card system does not work - completed 1/19	10/26/99
		3	Dual fiber feeds not provided - 1/19 need pull box	10/26/99
		4	DS0's, DS3's and DS1's not wired - work in progress - completed 1/19	10/26/99
Williamstown	Physical	1	Access card system does not work - completed 1/19	10/26/99
		2	No collocation sign on door - completed 1/19	10/26/99
		3	Dual fiber feeds not provided - 1/19 need pull box	10/26/99
Paulsboro	Physical	1	No collocation sign on door	11/4/99
		2	Card Access system does not work - completed 1/19	11/4/99
		3	Need fiber diversity - 1/19 need pull box	11/4/99
		4	Extend T&R cable rack to cage area	11/4/99
		5	DSO block DLM 50-5-1 not labeled on KDF	11/4/99
		6	RR 199c.01.05 far end stenciled wrong - completed 1/19	11/4/99
Cinnaminson	Physical	1	Access card system does not work - completed 1/19	11/4/99
		2	DS3 wired to front side of panel	11/4/99
		3	Need fiber diversity - 1/19 need pull box	11/4/99
		4	DSO Labeling incorrect, Cosmos wrong	11/4/99

Central Office	Type of Collocation Space	Item #	Punch Item	Date Referred to Bell Atlantic
Mays Landing	Scope	1	Access card system does not work - completed 1/19	11/4/99
		2	Need fiber diversity - 1/19 need pull box	11/4/99
		3	Telco 1/0 Green not connected to Ground bar	11/4/99
Medford	Scope	1	Building not ready for walk thru 11/3/99 - completed 1/19	11/4/99
			Telco installation activity underway. Very small area. - 1/19 need pull box	11/4/99
Ventnor	Physical	1	Access card system does not work.	11/8/99
		2	No fiber conduit diversity to cage.	11/8/99
Somers Point	Physical	1	Access card system does not work.	11/8/99
		2	No fiber conduit diversity to cage.	11/8/99
		3	DSX 1 panels installed incorrectly - spacing	11/8/99
Haddonfield	Physical	1	No fiber conduit diversity to cage.	11/9/99
		2	DSX 1 panels installed incorrectly - spacing	11/9/99
		3	No tags on power cables.	11/9/99
		4	Did not provide all duplex outlets - (1 only)	11/9/99
Pleasantville	Scope	1	Dual fiber feeds are not extended to the collocation space.	2/8/00
		2	No collocation signs on doors.	2/8/00
		3	Card access does not work.	2/8/00
		4	Cable rack does not extend to Conectiv's first 4 bays located at 0, 2, 4, and 6	2/23/00
Pennsville	Scope	1	Dual fiber feed not installed correctly - no diversity.	2/8/00
		2	Card access does not work.	2/8/00

Central Office	Type of Collocation Space	Item #	Punch Item	Date Referred to Bell Atlantic
Georgetown	Physical	1	No collocation sign on outside door	2/24/99
		2	No emergency lighting	
		3	Power and VF cables share same cable rack	
		4	Need additional keys - 5 for cage	
Smyrna	Physical	1	No outside light at collocation entrance	Jan-99
		2	No collocation sign on outside door	
		3	No emergency lighting	
		4	No conduit in place for fiber	
		5	Cable rack directly above cage needs to be relocated	
		6	Need additional keys - 5 for cage	
Angola	Physical	1	Power and VF cables share same cable rack	3/31/99
		2	Access node will not fit through doorway to the common area.	
		3	Power cables not tagged.	
		4	Door to common area is wood.	
		5	No emergency lighting	
		6	Need additional keys - 5 for cage	
Rehoboth	Physical	1	No emergency lighting	2/24/99
		2	Need additional keys - 5 for cage	
		3	SSLPMDF too close to cage - 15 inches	
Camden	Physical	1	No outside light at entrance to collocation	Jan-99
		2	No emergency lighting	
		3	Need additional keys - 5 for cage	
		4	No RR on power cable tags	
		5	DS1's - 28 provided. 56 requested	
		6	DS3's - 3 provided 4 requested	
Laurel	Physical	1	No emergency lighting	Jan-99
		2	Cage lighting interferes with equip. Needs to be moved. Floor has been marked with location.	
		3	No pathway provided to common area ground bar.	
		4	Need additional keys - 5 for cage	
Marshallton	CCOE	1	No entrance door lighting.	5/18/00
		2	No light at top of stairs leading to 2nd flr	5/18/00
		3	Floor plan not available.	5/18/00
		4	Floor not marked out for RR290.16.	5/18/00
		5	Power cable not long enough to reach Conectiv power equip.	5/18/00
		6	CFA for DSO's incorrect.	5/18/00
		7	Restrooms not accessible.	5/18/00
		8	Light between floors is out at the landing.	6/1/00
Penn Rose	CCOE	1	Hallway cluttered with old terminals, etc., leading to CLEC area.	5/18/00
		2	Floor plan not available.	5/18/00
		3	Power cable not long enough to reach Conectiv power equip.	5/18/00
		4	CFA for DSO's partially incorrect.	5/18/00
		5	Restrooms not accessible.	5/18/00

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	Punch Item	Date Referred to Bell Atlantic
ANNAPOLIS	PHYSICAL	11/26/99	12/1/99	1	NO COLLOCATION SIGN ON OUTSIDE DOOR	12/1/99
				2	DS0's not stenciled correctly	12/1/99
				3	DS 1 & 3 CFA not on standard form	12/1/99
				4	Card access system does not work	12/1/99
				5	AC outlets-6 on application-2 provided	12/1/99
BALTIMORE						
CHARLES ST.	PHYSICAL	11/26/99	12/1/99	1	FANNING RINGS MISSING ON DS 1 PANELS ON POT BAY	12/1/99
				2	DS0's not stenciled correctly	12/1/99
				3	DS 1 & 3 CFA not on standard form	12/1/99
				4	Card access system does not work	12/1/99
				5	AC outlets-6 on application-less provided	12/1/99
				6	Fiber diversity not provided,1 20" cable rack	12/1/99
COLUMBIA						
SNOWDEN RIVER	PHYSICAL	11/26/99	12/1/99	1	NO COLLOCATION SIGN ON OUTSIDE DOOR	12/1/99
				2	DS 1 & 3 CFA not on standard form	12/1/99
				3	Card access system does not work	12/1/99
				4	AC outlets-6 on application-less provided	12/1/99
				5	DS0's not stenciled correctly	12/1/99
COCKEYSVILLE	PHYSICAL	11/26/99	12/1/99	1	DS 1 & 3 CFA not on standard form	12/1/99
9720 YORK RD.				2	Card access system does not work	12/1/99
				3	AC outlets-6 on application-less provided	12/1/99
				4	Restrooms not accessible	12/1/99
LAUREL	PHYSICAL	11/26/99	12/1/99	1	NO COLLOCATION SIGN ON OUTSIDE DOOR	12/1/99
				2	FANNING RINGS MISSING ON DS 1 PANELS AT POT BAY	12/1/99
				3	DS 1 & 3 CFA not on standard form	12/1/99
				4	Card access system does not work	12/1/99
				5	AC outlets,6 on application-3 provided	12/1/99
				6	DS0's not stenciled correctly	12/1/99
				7	Restrooms not accessible	12/1/99
RIESTERTOWN	PHYSICAL	11/26/99	11/30/99	1	FIBER CONDUITS NOT PLACED	11/30/99
				2	APPLIANCE OUTLETS NOT AVAILABLE	11/30/99
				3	LIGHTING NOT AVAILABLE(WORK IN PROGRESS 11/30/99)	11/30/99
				4	DS 1 & 3 CFA not on standard form	11/30/99
				5	Card access system does not work	11/30/99
				6	DS0's not stenciled correctly	11/30/99
				7	Restrooms not accessible	11/30/99
SEVERNA PARK	PHYSICAL	11/26/99	12/1/99	1	Appliance outlets on application 6 provided 4	12/1/99
				2	DS0's not stenciled correctly	12/1/99
				3	DS 1 & 3 CFA not on standard form	12/1/99
				4	Card access system does not work	12/1/99
				5	Restrooms not accessible	12/1/99
SYKESVILLE	SCOPE	11/26/99	11/30/99	1	FIBER CONDUITS NOT PLACED	11/30/99
				2	NO COLLOCATION SIGN ON OUTSIDE DOOR	11/30/99
				3	DS0's not stenciled correctly	11/30/99
				4	DS 1 & 3 CFA not on standard form	11/30/99
				5	Card access system does not work	11/30/99
				6	Restrooms not accessible	11/30/99
TOWSON	PHYSICAL	11/26/99	11/30/99	1	DS 1 & 3 CFA not on standard form	11/30/99
				2	Card access system does not work	11/30/99

Central Office	Type of Collocation Space	Bell Atlantic Tariff Date	Bell Atlantic Scheduled Walk-Thru Date	Item #	Punch Item	Date Referred to Bell Atlantic
				3	Restrooms not accessible	11/30/99
				4	AC outlets on application 6-less provided	11/30/99
WESTMINSTER	PHYSICAL	11/26/99	11/30/99	1	APPLIANCE OUTLETS NOT LABELED WITH CB INFO	11/30/99
				2	CKT BRKR FOR OUTLETS NOT LABELED	11/30/99
				3	Provide copy of Floor Plan	11/30/99
				4	DS 1 & 3 CFA not on standard form	11/30/99
				5	Card access system does not work	11/30/99
				6	DS0's not stenciled correctly	11/30/99
				7	Restrooms not accessible	11/30/99
				8	AC outlets on application 6-less provided	11/30/99
Elkton	Physical			1	No Collocation Sign on Outside Door	2/16/99
				2	No Emergency Lighting (Conectiv wants to know exactly where is the emergency lighting?)	2/16/99
				3	OSP conduit ownership issue.	2/16/99
				4	28 DS1's provided 56 requested	2/16/99
Ocean City	Physical			1	No Collocation Sign on Outside Door & Door to Common Area	3/10/99
				2	Cage grounded to Painted area of cage	3/10/99
				3	Light not working outside Colo door	3/10/99
				4	Floor plan of cage area does not match actual cage area. 9x11.d vs. 8x13	3/10/99
				5	Defective bulb outside door to common area	3/10/99
				6	DS1's - 28 provided. 56 requested	3/10/99
				7	No Emergency Lighting	3/10/99
				8	Need Additional Keys - 5 for cage	3/10/99
Easton	Physical			1	No Collocation Sign on Outside Door	3/9/99
				2	DS1's - 28 provided. 56 requested	3/9/99
				3	Need Additional Keys - 5 for cage	3/9/99
Aberdeen	Physical			1	No Collocation Sign on Outside Door	3/9/99
				2	Window in cage area. Please Secure.	3/9/99
				3	DS1's - 28 provided. 56 requested	3/9/99
				4	Need Additional Keys - 5 for cage	3/9/99
				5	DS0's 700 provide 965 requested	3/9/99
Havre de Grace	Physical			1	DS1's - 28 provided. 56 requested	3/9/99
				2	Water Pipes above Cage	3/9/99
				3	Stumble lighting in common area inadequate	3/9/99
				4	No Collocation Sign on Outside Door	3/9/99
				5	No Emergency Lighting (Conectiv wants to know exactly where is the emergency lighting?)	3/9/99
				6	Need Additional Keys - 5 for cage	3/9/99
Havre de Grace **CCI Augment #1**	Physical			1	DSOs - 200 requested are labeled incorrectly at the POT MDF. EPA assignments sent to CCI by the LCC is correct.	3/31/00

CERTIFICATE OF SERVICE

I, Michael P. Donahue do hereby certify that on this 12th day of October, 2000 the foregoing Comments of Conectiv Communications, Inc. were delivered by hand and first class mail to the following:

/S/
Michael P. Donahue

VIA HAND DELIVERY
Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals - TW-A325
445 12th Street, S.W.
Washington, DC 20554

VIA HAND DELIVERY
Janice Myles
Common Carrier Bureau
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